NON-PUBLIC?: N
ACCESSION #: 8803220150
LICENSEE EVENT REPORT (LER)

FACILITY NAME: PLANT VOGTLE - UNIT 1 PAGE: 1 of 4

DOCKET NUMBER: 05000424

TITLE: REACTOR TRIP WHICH RESULTED FROM A GENERATOR FIELD GROUND CAUSED BY A
PERSONNEL ERROR
EVENT DATE: 02/15/88 LER #: 88-006-00 REPORT DATE: 03/16/88

OPERATING MODE: 1 POWER LEVEL: 100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR SECTION
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: W. E. Burns, Nuclear Licensing Manager - Vogtle
TELEPHONE #: 404-526-7014

SUPPLEMENTAL REPORT EXPECTED: No

ABSTRACT: On February 15, 1988 at 1655 CST, a reactor trip occurred on Unit 1 with the plant at approximately 100 percent of rated thermal power. The reactor trip was initiated by a turbine trip which resulted when a generator field ground tripped the main generator. The field ground was caused by a maintenance electrician placing a conductive probe on the collector brush rigging while taking vibration readings.

This event occurred because the maintenance foreman failed to adequately implement the maintenance work order instructions and failed to provide adequate work instructions to the maintenance electrician.

Corrective actions include the counseling of the maintenance foreman.

(End of Abstract)

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A. REQUIREMENT FOR REPORT

This report is required per 10 CFR 50.73 (a)(2)(iv) because an unplanned automatic actuation of the Reactor Protection System occurred.

B. UNIT STATUS AT TIME OF EVENT

Unit 1 was in Mode 1 (Power Operation) with the reactor operating in normal steady state conditions at approximately 100 percent of rated thermal power (RTP). The reactor coolant system pressure and temperature were approximately 2235 psig and 588 degrees Fahrenheit, respectively.

C. DESCRIPTION OF EVENT

On February 15, 1988 at 1655 CST, a reactor trip on Unit 1 occurred with the plant at approximately 100 percent of RTP. The reactor trip was initiated by a turbine trip, which resulted from a generator field ground tripping the main generator. After the reactor trip, the steam generator low-low level setpoints were reached initiating an expected Auxiliary Feedwater (AFW) actuation of the motor driven and turbine driven auxiliary feedwater pumps. By 1715 CST, the plant was stabilized in Mode 3 (Hot Standby) with reactor coolant system temperature and pressure at approximately 557 degrees Fahrenheit and 2235 psig, respectively.

The generator field ground resulted from a personnel error by a Georgia Power electrician. Vibration readings were being taken per an approved Maintenance Work Order (MWO), No 18800769. The electrician placed the vibration instrument probe on the generator brush rigging and established a field ground which resulted in the turbine/reactor trip. The MWO had been initiated as the result of higher than normal vibration levels indicated during the startup. The work instructions on the MWO stated, "measure bearings and coupling vibrations locally with IRD equipment under GE or system engineering direction". During the dayshift on February 12

1988, reading were taken at the direction of the General Electric (GE) engineer. One of those readings was taken on the generator collector using the wooden dowel resting against one of the brushes. The reading was recorded on the data sheet under the heading of collector ring.

On Saturday, February 13, 1988, the Operations Superintendent and the Engineering Superintendent decided to continue taking the readings at regular intervals of once per shift. The existing work order was used to take the readings at the points indicated on the data sheet. Neither the GE engineer nor the system engineer were contacted concerning the additional readings or to provide the directions indicated by the MWO. Several sets of readings were taken on Saturday, Sunday, and Monday before the ground on the generator field was activated on February 15, 1988.

D. CAUSE OF EVENT

This event occurred because the maintenance foreman failed to obtain instructions from the GE or system engineer per the MWO instructions. The collector reading was added to the data sheet by the GE Engineer and is not a normal vibration measuring point. The foreman also failed to ensure the maintenance electrician had adequate directions to perform the task. The foreman assumed the electrician knew how to take the collector vibration reading, but the electrician was not aware that the reading should be obtained by using the wooden dowel.

E. ANALYSIS OF EVENT

The accident analysis for a turbine trip at 102% of rated thermal power demonstrates that the plant design is such that a turbine trip presents no hazard to the integrity of the reactor coolant system or the main steam system. The analysis also show that the departure from nucleate boiling ratio (DNBR) will not decrease below 1.30 at anytime during the expected transient. Since the actual plant conditions were much less severe than assumed for the accident analysis, the plant safety and the health and safety of the public was not affected by this event.

F. CORRECTIVE ACTIONS

Several actions are being taken to address the direct and contributing causes to this event.

1. The maintenance foreman has been counseled to emphasize the importance of understanding the work instructions of the MWO and ensure the workmen understand how to perform assigned tasks and work processes.

2. All appropriate maintenance personnel will be instructed in the strict compliance with written MWO instructions. They will also receive the same counseling specified in item 1 above. These actions are scheduled to be completed by April 4, 1988.

G. ADDITIONAL INFORMATION

1. Failed Component Identification

None

2. Previous Similar Events

LER 50-424/1987-041 concerned a reactor trip that occurred as a result of an Instrument and Control (I&C) technician who did not follow a procedure referenced in the MWO.

LER 50-424/1987-050 concerned a reactor trip that occurred as a result of an I&C technician not following proper work practices and not receiving adequate instructions to perform his work activity on the turbine.

3. Energy Industry Identification System Codes

Main Generator Excitation System - TL
Auxiliary Feedwater System - SJ
Main Turbine System - BA

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X7GJ17-V310

March 16, 1988

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

PLANT VOGTLE - UNIT 1
NRC DOCKET 50-424
OPERATING LICENSE NPF-68
LICENSEE EVENT REPORT
REACTOR TRIP WHICH RESULTED FROM A GENERATOR FIELD GROUND CAUSED BY A PERSONNEL ERROR

Gentlemen:

In accordance with the requirements of 10 CFR 50.73(a)(2)(iv), Georgia Power Company is submitting a Licensee Event Report concerning an actuation of the Reactor Protection System caused by a personnel error.

Sincerely,
/s/ ILLEGIBLE for
L. T. Gucwa

PAH/lm
Enclosure: LER 50-424/1988-006
c: (see next page)

ATTACHMENT # 1 TO ANO # 8803220150 PAGE: 2 of 2

Georgia Power

U. S. Nuclear Regulatory Commission
March 16, 1988
Page Two

c: Georgia Power Company
Mr. P. D. Rice
Mr. G. Bockhold, Jr.
GO-NORMS

U. S. Nuclear Regulatory Commission
Dr. J. N. Grace, Regional Administrator
Mr. J. B. Hopkins, Licensing Project Manager, NRR (2 copies)
Mr. J. F. Rogge, Senior Resident Inspector-Operations, Vogtle

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